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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/534,156
Filing Date: May 05, 2005
Appellant(s): TELSCHOW, JEFFREY EARL

Akzo Nobel Inc.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 17, 2010 appealing from the Office action mailed June 17, 2009.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: claims 1-20.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. 35 USC 112 2nd paragraph.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

4,575,434	FRANK	3-1986

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 10-12 and 13-19 rejected under 35 U.S.C. 102(b) as being anticipated by US 4,575,434.

The reference teaches the process instantly claimed: removal of long chain aliphatic amides from a solution of the amide and nitrile. The amide is protonated by acid addition. Amide ions are transferred to the acid phase. The nitrile having a reduced content of impurities (i.e. amides) is separated from the acid reaction mixture.

The purified nitrile is re-slurried with fresh clay (i.e. adsorbent). See columns 3-5 for a general description; examples I and II in columns 6-8 for specific embodiments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 9 and 20 rejected under 35 U.S.C. 103(a) as being obvious over US 4,575,434.

Determination of the scope and contents of the prior art.
The prior art teaches the process described above, Section 5.

Ascertaining the differences between the prior art and the claims at issue.
The specific embodiments in the reference do not teach the following limitation: 50-70% sulfuric acid. The reference teaches the use of 98% sulfuric acid. The reference generically teaches the use of "acid" provided it is strong enough to protonate amide.

Resolving the level of ordinary skill in the pertinent art – Prima Facie Case of Obviousness.

One of ordinary skill would be motivated, by the implicit disclosure in the reference, to practice the process with different acid strengths with reasonable expectation of success. MPEP 2144.05.II.A. states:

> *A. Optimization Within Prior Art Conditions or Through Routine Experimentation*
>
> Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) (Claimed process which was performed at a temperature between 40°C and 80°C and an acid concentration between 25% and 70% was held to be *prima facie* obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.); see also *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382 ("The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.");

Therefore, the claimed process is *prima facie* obvious to one of ordinary skill in the art over the teaching of US 4,575,434.

(10) Response to Argument

Applicants traverse the 35 USC 102 rejection over the grounds described below, see quotations in Sections A and B. Responses to Applicants arguments are provided below, see bullet points in Sections A and B.

A. "Applicants argue that a claim is anticipated only if each and every element as set forth in the claim is found, expressly or inherently described, in the prior art

reference. Applicants argue that the reference of Frank et al. differs from the present claims in that in the former (i.e. Frank et al.), no acid layer is formed and therefore, of course, an acid layer is not separated from said solution. Applicants conclude that the instant claims are therefore not anticipated by the prior art reference"

- The reference teaches that the reaction mixture (i.e. solution of nitriles and amides) is heterogeneous with a nitrile and an acid – i.e. express disclosure of the formation of acid layer. Column 3, paragraph 2. Excerpts from the reference provided below.

> The reaction mixture will be heterogeneous with nitrile, acid and solid phases.

- The reference teaches that the amides transfer to the acid phase and that the nitrile and acid layers are separated, leaving a nitrile with reduced impurity. Column 3, paragraph 4. Column 2, lines 48-49. Excerpts from the reference provided below.

> The amide ions will transfer to the acid phase.
>
> Nitriles having a reduced content of impurities may then be separated from the reaction mixture.

- Based on the remarks above, Applicant's arguments are not persuasive. Namely, the prior art reference teaches formation of acid layer, and its separation from the solution of nitrile/acid.

B. "Applicants argue that the Examiner acknowledges that Frank does not disclose the formation of an acid layer, or the subsequent separation of the same from the nitrile."

- The office action dated December 11, 2008 incorrectly stated that the formation of an acid layer was not *expressly* disclosed in the reference. This office action was vacated on June 17, 2009 with the concurrent issue of a new office action. The new office action dated June 17, 2009 is most recent action of record in the instant application.
- The office action dated June 17, 2009 stated that, contrary to the International Preliminary Examination Report, the reference of Frank et al. does expressly disclose the formation of an acid layer.

Applicants traverse the 35 USC 103 rejection of claims 8, 9 and 20 over the ground that the reference of Frank et al. does not apply as a reference for the reasons provided in the rebuttal of the 35 USC 102 rejection. In response, it is maintained that the 35 USC 102 rejection is proper, therefore, Applicant's arguments are not persuasive. Additionally, rationale for making the 103 rejection and why it would be obvious to a skilled artisan is set forth above.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Sun Jae Y. Loewe/

Conferees:

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